



# **NATIONAL TRANSPORTATION SAFETY BOARD**

Office of Research and Engineering  
Washington, DC

## **Medical Factual Report**

**May 13, 2016**

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Chief Medical Officer

### **A. ACCIDENT: CEN14FA286; South Timbalier 317 Platform, LA**

On June 11, 2014, about 1430 central daylight time, a Bell 206L4 helicopter, N207MY, impacted the waters in the Gulf of Mexico. The helicopter was registered to Coy Leasing LLC and operated by Westwind Helicopters, Inc., under the provisions of 14 Code of Federal Regulations Part 135. The commercial-rated pilot and passenger were fatally injured and the helicopter was destroyed. Visual meteorological conditions prevailed and company flight following was in effect. The flight departed an oil platform at 1409, and was en route to the South Timbalier 317 platform.

### **B. GROUP IDENTIFICATION**

No group was formed for the medical evaluation in this accident.

### **C. DETAILS OF INVESTIGATION**

#### **1. Purpose**

This investigation was performed to evaluate the pilot for any medical conditions, the use of any medications/illicit drugs, and the presence of any toxins.

#### **2. Methods**

The FAA blue ribbon medical file (limited to records from 2000 forward), FAA medical case review, toxicology results, autopsy report, and the investigator's reports were reviewed.

#### **FAA Medical File and Medical Case Review**

According to the FAA files, the 66 year old male pilot reported 13,500 total hours of flight experience at the time of his last aviation medical exam, dated 11/19/2013. According to the records, at that time he was 69 inches tall, weighed 185 pounds, and reported no chronic medical conditions and no medications. He had previously reported spinal surgery

in 1997 and the occasional use of Tylenol with Codeine for low back pain before 2005. He was issued a second class medical certificate limited by a requirement for corrective lenses.

#### Autopsy

According to the autopsy performed by the Jefferson Parish Forensic Center, the cause of death was multiple blunt force injuries and the manner of death was accident.

In addition, significant natural disease of the heart was identified, although the circumflex and right coronary arteries could not be assessed due to the degree of injury. The heart weighed 520 grams.; average for a 185 pound man is 358 grams with a range of 271- 473 grams.<sup>1</sup> The left ventricle was 1.1 cm in thick and the right ventricle was 0.3 cm thick. Average is 1.23 cm for the left and 0.3 cm for the right.<sup>1</sup> Only the left anterior descending artery was available for an assessment and a patent stent was noted within it. There was a large area of fibrosis of the heart muscle involving the posterior left and right ventricles and extending onto the septum. With the area of fibrosis, the left ventricular wall was thinned to 0.6 cm.

#### Toxicology

Toxicology testing performed by NMS labs at the request of the coroner identified tramadol and a metabolite in urine and 2.5 ug/ml of tramadol and 0.74 ug/ml of its metabolite O-desmethyiltramadol in cavity blood. Specimens sent to the FAA's Bioaeronautical Research Laboratory were lost en route.

Tramadol is a Schedule IV controlled substance available by prescription. It is an opioid medication used to treat pain and commonly sold with the name Ultram.<sup>2</sup> The therapeutic range is considered 0.05 ug/ml to 0.50 ug/ml and it carries a warning: may impair mental and/or physical ability required for the performance of potentially hazardous tasks (e.g., driving, operating heavy machinery).<sup>3</sup>

### **D. SUMMARY OF MEDICAL FINDINGS**

The 66 year old pilot in this accident had reported no chronic medical problems and no medications to the FAA. His autopsy identified a large area of myocardial scarring and fibrosis as well as the presence of a patent stent in the left anterior descending coronary artery; the other coronary arteries were too damaged to be assessed. Toxicology testing by NMS labs identified 2.5 ug/ml of tramadol and 0.74 ug/ml of its major metabolite in the pilot's cavity blood.

## References

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<sup>1</sup> Kitzman DW, Scholz DG, Hagen PT, Ilstrup DM, Edwards WD. Age-related changes in normal human hearts during the first 10 decades of life. Part II (Maturity): A quantitative anatomic study of 765 specimens from subjects 20 to 99 years old. Mayo Clinic Proc., 1988. 63(2): p. 137-46.

<sup>2</sup> Drugs.com. FDA prescribing information, side effects, and uses. Tramadol.  
<http://www.drugs.com/pro/tramadol.html> Accessed 4/18/2016.

<sup>3</sup> Federal Aviation Administration. CAMI Toxicology Drug Information. Tramadol.  
<http://jag.cami.jccbi.gov/toxicology/DrugDetail.asp?did=199> Accessed 4/29/2016.